

IN THE CLAIMS

1. (Cancelled).
2. (Cancelled).
3. (Previously Presented) A baseband direct sequence spread spectrum CDMA transceiver comprising:
a transmitter which modulates data by a Hadamard function having pseudorandomly shuffled rows or columns, wherein the data is only modulated in one single modulation step with no additional modulation.
4. (Cancelled).
5. (Previously Presented) The baseband direct sequence spread spectrum CDMA transceiver of Claim 3 further comprising an active servo system for canceling transmit signals from receive signals.
6. (Previously Presented) The baseband direct sequence spread spectrum CDMA transceiver of Claim 3, wherein RF signals are spread across DC to 30 MHz.
7. (Previously Presented) A baseband direct sequence spread spectrum CDMA transceiver comprising an antenna which is at least ten times shorter than the transmit signal wavelength.
8. (Previously Presented) The baseband direct sequence spread spectrum CDMA transceiver of Claim 7, wherein the antenna is driven mismatched.

9. (Cancelled).

10. (Previously Presented) The baseband direct sequence spread spectrum CDMA transceiver of Claim 7 comprising a code division duplex mode of operation.

11. (Cancelled).

12. (Cancelled).

13. (Previously Presented) A baseband direct sequence spread spectrum CDMA transmitter having a Hadamard function with pseudorandomly shuffled rows or columns, wherein there is only one single modulation step for modulating the data before transmission.

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14. (Cancelled).

15. (Previously Presented) The baseband direct sequence spread spectrum CDMA transmitter of Claim 13, wherein RF signals are spread across DC to 30 MHz.

16. (Cancelled).

17. (Previously Presented) The baseband direct sequence spread spectrum CDMA transmitter of Claim 13 comprising a code division duplex mode of operation.

18. (Cancelled).

19. (Cancelled).

20. (Cancelled).

21. (Previously Presented) A method for transmitting an RF signal comprising:

modulating a data signal with an orthogonal pseudo random code;
transmitting the data signal as a baseband direct sequence spread spectrum CDMA, wherein no additional modulation is performed on the data signal before transmission;
actively servoing a transmit signal to cancel the transmit signal from a receive signal.

22. (Previously Presented) The method of Claim 21 further comprising the step of spreading a baseband signal across DC to 30 MHz.

23. (Previously Presented) The method of Claim 21 further comprising the step of using a same antenna to transmit and receive baseband signals in a full duplex mode of operation.

24. (Cancelled).

25. (Previously Presented) A method for transmitting an RF signal, comprising the steps of:

modulating a data signal in a single step with a Hadamard function having pseudorandomly scrambled rows;

transmitting the data signal as baseband direct sequence spread spectrum CDMA.

26. (Original) The method of Claim 25 further comprising the step of converting a digital data signal into an equivalent analog signal which is directly transmitted by an antenna over the air, wherein the antenna is at least ten times shorter than the wavelength of the signal being transmitted.

27. (Original) The method of Claim 25 further comprising the step of actively servoing a transmit signal to cancel the transmit signal from a receive signal.

28. (Original) The method of Claim 25 further comprising the step of spreading a baseband signal across DC to 30 MHz.

29. (Original) The method of Claim 25 further comprising the step of using a same antenna to transmit and receive baseband signals in a full code division duplex mode of operation.

30. (Original) The method of Claim 25 further comprising the step of transmitting baseband signals for peer-to-peer cellular communications.